

Claims As Amended

1-2. (Canceled)

3. (Previously Presented) An apparatus for storing electronic money, comprising:

a radio signal receiving block for receiving a radio signal and determining whether the received signal corresponds to a general information or balance storing information;

a memory block for storing a storing amount, a content and a certification information;

a computation logic block for comparing a serial number extracted from the received signal with a previously stored serial number if it is determined that the received signal corresponds to balance storing information, and storing a balance storing data extracted from the balance storing information into the memory block if the extracted serial number and the previously stored serial number are determined to be the same and the balance storing information transmitted from the radio signal receiving block is determined to be a proper signal; and

a non-contact block for storing a balance storing amount into the memory block using a card storing unit and reading a balance storing amount of the memory block when paying the money.

4. (Previously Presented) The apparatus of claim 3, wherein said computation logic block is designed so that a certain amount of data is stored into the memory block only when first and second balance storing information are all received from the radio signal receiving block.

5. (Previously Presented) The apparatus of claim 3, wherein said radio signal receiving block includes:

a key input unit for inputting a certain key signal;

a display unit for displaying general information or balance storing information as a character or digit;

a control means for decrypting an output signal of the high frequency processing unit, transmitting to the display unit, transmitting to the computation block if the information is balance storing information or is a balance storing content check key signal from the key input unit, receiving a balance storing content information and displaying the same on the display unit; and

a tone signal generator for generating a call sound or an error sound during the balance storing operation by the control means.

6. (Previously Presented) The apparatus of claim 5, wherein said control means is designed to check whether there is a certain pattern signal in

an output signal of the high frequency processing unit, determine whether the information corresponds to a common radio information or a balance storing information, format the information into a certain format corresponding to the computation logic block when there is a certain pattern signal, determine whether there is an error signal, and transmit the formatted information to the computation logic block when there is no transmission error.

7. (Previously Presented) The apparatus of claim 3, wherein said non-contact block includes:

a modulation and demodulation unit for preparing a signal transmitting and receiving operation with a card storing unit or a card reader; and

a non-contact computation unit for storing balance storing data into the memory block at the modulation and demodulation unit if the received signal corresponds to balance storing information, reading the balance storing data stored in the memory block if money is paid and transmitting the read data to the modulation and demodulation.

8. (Previously Presented) The apparatus of claim 3, wherein said computation logic block includes:

control means for summing the balance of the memory block and the balance storing amount if certification information is extracted during the

balance storing operation and the previously stored various certification information is the same as the extracted certification information, for thereby determining whether a subscriber is a proper subscriber, storing the balance storing data into the memory block when a summed amount is below a certain amount and transmitting data to a radio signal receiving block in order to generate an error and error sound when the summed amount exceeds the certain amount; and

a radio interface unit for implementing a data transmitting and receiving operation between the radio signal receiving block and the control means.

9. (Previously Presented) The apparatus of claim 8, wherein said control means is designed to decrypt an output signal of the radio signal receiving block, extract certification information if there is a service stop signal, disables the memory block when the extracted certification information is the same as the previously stored certification information, and stop the service of the card.

10. (Previously Presented) An apparatus for storing an electronic money, comprising:

a radio signal receiving block for receiving a radio signal, determining whether the received radio signal corresponds to general information or balance storing information;

a memory block for storing a storing amount, a content, and certification information;

a modulation and demodulation unit for implementing a signal transmitting and receiving operation with a card storing unit; and

a computation logic block for comparing a serial number extracted from the received signal with a previously stored serial number if it is determined that the received signal corresponds to balance storing information, and storing the balance storing information into the memory block if the extracted serial number and the previously stored serial number are determined to be the same and the various certification information extracted from a the balance storing information transmitted from the radio signal receiving block during the balance storing operation are determined to be proper information, storing the balance storing data of the modulation and demodulation unit into the memory block and reading the amount data up to the amount confirmed by the modulation and demodulation unit during the payment operation from the memory block and paying via the modulation and demodulation unit.

11. (Previously Presented) The apparatus of claim 10, wherein said computation logic block is designed to receive first and second balance storing information from the radio signal receiving block and store the amount data into the memory block only when the balance storing information is determined to be proper information.

12. (Previously Presented) The apparatus of claim 10, wherein said computation logic block is designed to stop the service of the terminal when proper first balance storing information is received from the radio signal receiving block.

13. (Previously Presented) The apparatus of claim 12, wherein said computation logic block is designed to release a temporary service stop state of the terminal when balance storing cancellation information is received from the radio signal receiving block during the balance storing operation.

14. (Previously Presented) The apparatus of claim 10, wherein said computation logic block includes:

control means for decrypting balance storing information based on a radio transmission method, storing the balance storing data into the memory block if the subscriber is determined to be a proper subscriber, storing the balance

storing data based on a non-contact method, reading the amount data up to the amount confirmed during the payment and transmitting via the non-contact interface unit;

a radio interface unit for implementing a data transmitting and receiving operation with the control means; and

a non-contact interface unit for implementing a signal transmitting and receiving operation between the modulation and demodulation unit and the control means.

15. (Previously Presented) The apparatus of claim 14, wherein said control means is designed to disable the operation of the memory block if an output signal from the radio signal receiving block is determined to be a proper service stop signal, and stop the operation of the modulation and demodulation unit for thereby stopping the service of the card.

16. (Previously Presented) An apparatus for storing electronic money wherein the apparatus is engaged with a portable terminal and an electronic money card, comprising:

high frequency processing means for receiving a radio signal and converting the received radio signal into a digital signal;

modulation and demodulation means for implementing a signal transmitting and receiving operation with a card storing unit or a card reader;

a memory block for storing a storing amount, a content and certification information; and

control means for receiving an output signal from the high frequency processing means, judging whether output signal corresponds to a general information or a balance storing information, storing the balance storing data into the memory block when a serial number extracted from the radio signal and the previously stored serial number are determined to be the same and various certification information extracted from the amount information are determined to be the same as previously stored various certification information if the received signal contains balance storing information, checking the balance storing data inputted from the modulation and demodulation means, storing the amount into the memory block, reading an amount of money up to an amount confirmed by the modulation and demodulation during the payment operation and then paying the money.

17. (Currently Amended) A method for storing electronic money using a radio communication and a card storing unit, comprising:

~~providing a device for automatically~~ determining whether a received radio signal corresponds to balance storing information;



extracting various certification information including amount information and a radio receiving block serial number if the received radio signal is determined to correspond to balance storing information, and determining whether the extracted serial number is the same as a previously stored serial number and whether a subscriber is a proper subscriber; and

storing the amount information extracted from the balance storing information if the extracted serial number and the previously stored serial number are determined to be the same and the subscriber is determined to be a proper subscriber.

18. (Previously Presented) The method of claim 17, wherein in said step for determining the balance storing information, the information is determined to be a balance storing information when there is a certain pattern signal in the received radio signal.

19. (Previously Presented) The method of claim 17, wherein said step for extracting various certification information includes:

reading a counter value contained in the balance storing information if it is determined that the serial numbers are the same and determining whether the read counter value is the same as a counter value of a function for the previously stored encryption;

determining whether the serial key value outputted via the encryption process in which the counter values are coincided is the same as a previously stored key value; and

determining that a subscriber is a proper subscriber when the key values are the same.

20. (Previously Presented) The method of claim 19, wherein said decryption process of the balance storing information is implemented when the counter value extracted from the balance storing information is the same as the counter value for the previously stored decryption.

21. (Previously Presented) The method of claim 17, wherein said step for storing the amount information includes:

summing a current balance storing amount and a recent radio balance storing amount to obtain a first summed amount if the subscriber is a proper subscriber and determining whether the first summed amount is below a certain amount;

determining whether the first summed amount equal to a second summed amount contained in the balance storing information based on the radio transmission method if the first summed amount is below a the certain amount;

storing the balance storing data if the first summed amount is equal to the second summed amount; and

determining the signal as a balance storing error if the first summed amount is greater than a the certain amount or the first summed amount is not equal to the second summed amount.

22. (Original) The method of claim 17, further comprising a step for displaying the current storing amount and the storing amount contents when the balance storing data is stored.

23. (Previously Presented) A method for storing electronic money by changing information in an electronic money card based on a radio communication, comprising:

determining whether a card service stop or release information is received if there is no balance storing information;

extracting a certification information and determining whether the extracted certification information is the same as previously stored certification information when it is determined that the card service stop or release information is received; and

releasing a card service stop if the extracted certification information is the same as the previously stored certification information.

24. (Previously Presented) The method of claim 23, wherein said certification information is a certain variable transmitted from the radio communication service provider.

25. (Original) The method of claim 24, wherein said variable is a serial number of the radio signal receiving block.

26. (Previously Presented) A method for storing electronic money using radio communication and a storing unit, comprising:

determining whether a received radio signal corresponds to personal information update information;

extracting a certain variable if it is determined that the received radio signal corresponds to personal information update information;

comparing the extracted variable with a certain variable transmitted during a previous personal information update; and

updating personal information when the currently transmitted variable is greater than the previously transmitted variable.

27. (Currently Amended) A method for storing electronic money using radio communication and a storing unit, comprising:

determining whether received balance storing information corresponds to a first balance storing information;

determining whether the received balance storing information is a proper signal by performing a certification of the first balance storing information if it is determined that the received balance storing information corresponds to the first balance storing information;

setting a temporary service stop state if it is determined that the received balance storing information is a proper signal and waiting to receive second balance storing information;

performing a certification of the second balance storing information when the second balance storing information is received and determining whether the second balance storing information is a proper signal;

wherein said certification step includes:

extracting the storing request amount from the first balance storing information, summing the thusly extracted amount and the balance, and determining whether the summed amount is greater than the storing limit amount;

encrypting the value as a certain key value when the summed amount is the same or is smaller than the storing limit amount and determining whether the value equals the value extracted from the first balance storing information, said certain key value is provided from a second certification and not from a

radio communication service provider and said certain key value is previously stored; and

encrypting the first balance storing information as a certain key value when the encrypted value is equal to the extracted value and changing to a decimal value and displaying the decimal value;

formatting the data contained in the second balance storing information and encrypting using a certain key value of the certification provider;

determining whether the encrypted value is equal to an encrypted value contained in the second balance storing information; and

determining that the signal is a proper signal if the encrypted values are equal;

wherein said encryption step is performed using a certain key value provided from the first and second certification providers;

storing a request amount if it is determined that the second balance storing information is a proper signal and implementing an available state of the card; and

completing balance storing operation when proper balance storing cancellation information is received after the first balance storing information is received.